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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,227	01/21/2004	Kia Silverbrook	MPA31US	2050

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EXAMINER	
GOLDBERG, BRIAN J	

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/760,227	SILVERBROOK ET AL.	
	Examiner	Art Unit	
	Brian Goldberg	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 January 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/3/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Drawings

1. The drawings are objected to because Figure 17C is referenced in the specification on page 13 line 27, page 15 line 7, page 17 line 34, page 18 line 24, and page 22 line 28, and possibly others. This was already brought to your attention in the Pre-Exam Formalities Notice mailed 4/26/2004. Also, the drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: fluid distribution stack 500, and possibly others. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 2 recites "a first connector arrangement carrying the power and data terminals and the fluid delivery port," and claim 3 recites that "the first connector arrangement is a second printed circuit board." Thus, claim 4 reciting "the second printed circuit board carries the power and data terminals and the fluid delivery port" is redundant since it is already contained in claim 3.

3. Claim 5 is objected to because of the following informalities: It is not clear what "respective ones" is referring to in the second to last line of the claim. Appropriate correction or explanation is required. Claim 5 also recites the limitation "the fluid distribution members" in the last two lines of the claim. There is insufficient antecedent basis for this limitation in the claim, since it is only referred to in the singular as "at least one fluid distribution member" prior to this reference.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Silverbrook et al.

6. Regarding claim 1, Silverbrook et al. disclose "at least one printhead module (10 of Fig 2) comprising at least two printhead integrated circuits(18 of Fig 4), each of which has nozzles formed therein for delivering printing fluid onto the surface of print media(col 3 ln 45-47), a support member (16 of Fig 7) supporting the at least two printhead integrated circuits and having at least one longitudinally extending channel (80 of Fig 7) for carrying the printing fluid, and an electrical connector (48 of Fig 8) for connecting electrical signals to the printhead integrated circuits; a casing (14 of Fig 3) comprising a support frame (64, 94, lower parts of 76 and 32 of Fig 2), removably mounting the at least one printhead module and drive electronics arranged to control the printing operation of at least one of the at least two printhead integrated circuits via the electrical connector (col 3 ln 48-49); and at least one connector arrangement (22 of Fig 8) mounted to at least one longitudinal end of the support frame and carrying at least one power terminal (48 of Fig 8) for connecting the electrical connector to a power supply, at least one data terminal (48 of Fig 8) for connecting the drive electronics to a data input (col 2 ln 57-58 and col 3 ln 59-64), and at least one fluid delivery port (72 of Fig 8) for connecting the at least one channel of the support member to a fluid supply via fluid delivery tubes (78 of Fig 12)."

7. Regarding claim 2, Silverbrook et al. disclose "wherein two connector arrangements (22 of Fig 8 and 54 of Fig 3) are provided comprising a first connector arrangement (22) carrying the power and data terminals (48 of Fig 8 and col 3 ln 59-64)

and the fluid delivery port (72 of Fig 8) at one longitudinal end of the support frame and a second connector arrangement (54) at the other longitudinal end of the support frame spring loading at least one first printed circuit board on which the drive electronics are carried in the direction of the first connector arrangement (col 4 ln 24-28)."

8. Regarding claim 3, Silverbrook et al. disclose "the first connector arrangement is a second printed circuit board (22 of Fig 8) and the second connector arrangement is a third printed circuit board (54 of Fig 3); and the at least one first printed circuit board (18 of Fig 8) is engaged at the one end of the support frame (28 of Fig 8) by the second printed circuit board (22 of Fig 8) and is engaged at the other end of the support frame by a spring portion formed in the third printed circuit board (54 of Fig 3 and col 4 ln 24-28)."

9. Regarding claim 4, Silverbrook et al. disclose "wherein the second printed circuit board (22 of Fig 8) carries the power and data terminals (col 3 ln 57-65) and the fluid delivery port (72 of Fig 8)."

10. Regarding claim 5, Silverbrook et al. disclose "a plurality of longitudinally extending electrical conductors (58 and 60 of Fig 14) connected to the second printed circuit board for delivering the power from the power supply to the drive electronics and printhead integrated circuits via the electrical connector (col 3 ln 57-65 and col 5 ln 27-29, 43-45)."

11. Regarding claim 6, Silverbrook et al. disclose "wherein the third printed circuit board (54 of Fig 3) carries another power terminal of the at least one power terminal (col

3 ln 57-65) and another fluid delivery port (col 4 ln 14-16) of the at least one fluid delivery port."

12. Regarding claim 7, Silverbrook et al. disclose "a plurality of longitudinally extending electrical conductors arranged as two groups of electrical conductors (58 and 60 of Fig 14) respectively connected to the second and third printed circuit boards (located on 28 of Fig 3) for delivering the power from the power supply to the drive electronics and printhead integrated circuits via the electrical connector at respective ends of the printhead assembly, respective ones of electrical conductors of the two groups of electrical conductors being connected together at abutting regions intermediate the ends of the printhead assembly (see Fig 3, col 3 ln 57-65, and col 5 ln 43-46)."

13. Regarding claim 8, Silverbrook et al. disclose "wherein the abutting regions of the individual electrical conductors are arranged in overlapping relationship (see Fig 3 and col 5 ln 45-46)."

14. Regarding claim 9, Silverbrook et al. disclose "wherein the third printed circuit board (54 of Fig 3) comprises termination connections for terminating a data signal traversing the at least one first printed circuit board from the second printed circuit board (col 4 ln 6-18)."

15. Regarding claim 10, Silverbrook et al. disclose "the at least one printhead module (10 of Fig 2) is formed as a unitary arrangement of the at least two printhead integrated circuits (18 of Fig 4), the support member (16 of Fig 7), the electrical connector (48 of Fig 8), and at least one fluid distribution member (26 of Fig 7) mounting the at least two

printhead integrated circuits to the support member; and the support member has a plurality of apertures (42 of Fig 7) extending through a wall of the support member arranged so as to direct the printing fluid from the at least one channel to associated nozzles in both, or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members (see Fig 7 and col 3 ln 45-47)."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJG

David Gray
Primary Examiner